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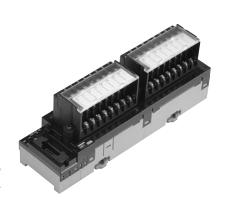
Digital I/O Slave Units with Screw Terminal Blocks (3-tier Terminal Block)

$\overline{\mathsf{CRT1}}$ - $\Box \mathsf{D08TA}(-1)/\Box \mathsf{D16TA}(-1)/\Box \mathsf{D08TAH}(-1)/\Box \mathsf{D16TAH}(-1)$

With the relay terminal blocks, doubling up wires on terminals is not necessary!
Smart Slave Units with Easy-to-understand Wiring Locations with One Common for Every Point.

Doubling up wires on terminals is unnecessary and wiring locations are easy to understand with these Smart Slaves with 3-tier Terminal Blocks.

- Easy-to-understand wiring. No doubling up of wires. Easy-to-understand wiring locations.
- Simplify startup with the communications power supply monitor (Smart function).
- Collect various preventive maintenance data required to improve productivity, such as information on equipment deterioration due to aging and equipment operating time data (Smart function).
- The communications baud rate is set without using switches and addresses are set using rotary switches, so setting errors are reduced.
- Communications connector and removable I/O terminal block enable maintenance without disconnecting wiring.



Ordering Information

| Name | | Specifications | | | |
|---------------------------------|---------|--------------------|-----|--|----------------|
| | Innuta | Q innute | NPN | | CRT1-ID08TA |
| | Inputs | 8 inputs | PNP | | CRT1-ID08TA-1 |
| | Outputs | 8 outputs | NPN | | CRT1-OD08TA |
| | Outputs | o outputs | PNP | | CRT1-OD08TA-1 |
| | Inputs | 16 inputs | NPN | Without Short-circuit and | CRT1-ID16TA |
| | iriputs | 16 inputs | PNP | Disconnected Line Detection | CRT1-ID16TA-1 |
| | Outputo | Outputs 16 outputs | NPN | | CRT1-OD16TA |
| | Outputs | | PNP | | CRT1-OD16TA-1 |
| Three-tier Screw Terminal Block | Inputs/ | 8 inputs/ | NPN | | CRT1-MD16TA |
| | Outputs | 8 outputs | PNP | | CRT1-MD16TA-1 |
| | Innute | 8 inputs | NPN | With Short-circuit and Disconnected Line Detection | CRT1-ID08TAH |
| | Inputs | o inputs | PNP | | CRT1-ID08TAH-1 |
| | Outputs | 8 outputs | NPN | | CRT1-OD08TAH |
| | Outputs | o outputs | PNP | | CRT1-OD08TAH-1 |
| | Innute | 16 inputs | NPN | | CRT1-ID16TAH |
| | Inputs | 10 Inputs | PNP | | CRT1-ID16TAH-1 |
| | Outputs | 16 outputs | NPN | | CRT1-OD16TAH |
| | Outputs | 16 outputs | PNP | 1 | CRT1-OD16TAH-1 |
| | Inputs/ | 8 inputs/ | NPN | | CRT1-MD16TAH |
| | Outputs | | PNP | 1 | CRT1-MD16TAH-1 |

Performance Specifications

For Basic Performance Specifications of Slave Units, refer to page 26.

Input Section Specifications

● Eight-point Input Units (3-tier Terminal Block)

| Item | Specification | | | | |
|---|--|--|--|--|--|
| Model | CRT1-ID08TA | CRT1-ID08TA-1 | CRT1-ID08TAH-1 | CRT1-ID08TAH-1 | |
| I/O capacity | 8 inputs | | | | |
| Internal I/O common | NPN | PNP | NPN | PNP | |
| ON voltage | 15 VDC min. (between each input terminal and the V terminal) | 15 VDC min. (between each input terminal and the G terminal) | 10.5 VDC min. (between each input terminal and the V terminal) | 10.5 VDC min. (between each input terminal and the G terminal) | |
| OFF voltage | 5 VDC max. (between each input terminal and the V terminal) | 5 VDC max. (between each input terminal and the G terminal) | | | |
| OFF current | 1.0 mA max. | | | | |
| Input current | At 24 VDC: 6.0 mA max./input At 17 VDC: 3.0 mA min./input | | | | |
| ON delay | 1.5 ms max. | | | | |
| OFF delay | 1.5 ms max. | | | | |
| Power supply short-circuit detection | | | Operates at 50 mA/point min. | | |
| Disconnection detection | | | Operates at 0.3 mA/point max. | | |
| Number of circuits per common | 8 inputs/common | | | | |
| Isolation method | Photocoupler | | | | |
| Input indicator | LED (yellow) | LED (yellow) | | | |
| Installation | DIN Track | | | | |
| Power supply type | Multi-power supply | | | | |
| Current supplied to input devices | 100 mA/point | | 50 mA/point | | |
| Communications power supply current consumption | 30 mA max. for 24-VDC power supply voltage 50 mA max. for 14-VDC power supply voltage | | 35 mA max. for 24-VDC power supply voltage 60 mA max. for 14-VDC power supply voltage | | |
| I/O power supply current consumption | 5 mA max. for 24-VDC power supply voltage 25 mA max. for 24-VDC power supply voltage | | | supply voltage | |
| Weight | 190 g max. | | 200 g max. | | |

● Sixteen-point Input Units (3-tier Terminal Block)

| Item | Specification | | | | |
|---|--|--|---|--|--|
| Model | CRT1-ID16TA | CRT1-ID16TA-1 | CRT1-ID16TAH | CRT1-ID16TAH-1 | |
| I/O capacity | 16 inputs | | | | |
| Internal I/O common | NPN | PNP | NPN | PNP | |
| ON voltage | 15 VDC min. (between each input terminal and the V terminal) | 15 VDC min. (between each input terminal and the G terminal) | 10.5 VDC min. (between each input terminal and the V terminal) | 10.5 VDC min. (between each input terminal and the G terminal) | |
| OFF voltage | 5 VDC max. (between each input terminal and the V terminal) | 5 VDC max. (between each input terminal and the G terminal) | | | |
| OFF current | 1.0 mA max. | | | | |
| Input current | At 24 VDC: 6.0 mA max./input At 17 VDC: 3.0 mA min./input | | | | |
| ON delay | 1.5 ms max. | | | | |
| OFF delay | 1.5 ms max. | | | | |
| Power supply short-circuit detection | | | Operates at 50 mA/point min. | | |
| Disconnection detection | Operates at 0.3 mA/point max. | | | | |
| Number of circuits per common | 8 inputs/common | | | | |
| Isolation method | Photocoupler | | | | |
| Input indicator | LED (yellow) | | | | |
| Installation | DIN Track | | | | |
| Power supply type | Multi-power supply | | | | |
| Communications power supply current consumption | 40 mA max. for 24-VDC power s 55 mA max. for 14-VDC power s | 117 0 | 40 mA max. for 24-VDC power supply voltage 70 mA max. for 14-VDC power supply voltage | | |
| I/O power supply current consumption | 5 mA max. for 24-VDC power supply voltage 25 mA max. for 24-VDC power supply voltage | | | supply voltage | |
| Weight | 330 g max. 340 g max. | | | | |

Output Section Specifications

● Eight-point Output Units (3-tier Terminal Block)

| Item | Specification | | | | |
|---|--|--|--|--|--|
| Model | CRT1-OD08TA | CRT1-OD08TA-1 | CRT1-OD08TAH | CRT1-OD08TAH-1 | |
| I/O capacity | 8 outputs | | | | |
| Internal I/O common | NPN | PNP | NPN | PNP | |
| Rated output current | 0.5 A/output, 2 A/common | | | | |
| Residual voltage | 1.2 V max. (0.5 A DC, between each output terminal and the G terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the V terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the G terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the V terminal) | |
| Leakage current | 0.1 mA max. | | l | 1 | |
| ON delay | 0.5 ms max. | | | | |
| OFF delay | 1.5 ms max. | | | | |
| Load short-circuit detection | | Supported. | | | |
| Disconnection detection | Operates at 3 mA/point max. (Does not operate at over 3 mA.) | | | .) | |
| Number of circuits per common | 8 outputs/common | | | | |
| Isolation method | Photocoupler | | | | |
| Output indicators | LED (yellow) | | | | |
| Installation | DIN Track | DIN Track | | | |
| Power supply type | Multi-power supply | | | | |
| Current supplied to output devices | 100 mA/point | | | | |
| Communications power supply current consumption | 35 mA max. for 24-VDC power supply voltage 55 mA max. for 14-VDC power supply voltage | | | | |
| I/O power supply current consumption | 15 mA max. for 24-VDC power supply voltage 15 mA max. for 24-VDC power supply voltage 35 mA max. for 24-VDC supply voltage | | | 35 mA max. for 24-VDC power supply voltage | |
| Output handling for communications errors | Select either hold or clear from CX-Integrator. | | | | |
| Weight | 190 g max. | | | | |

● Sixteen-point Output Unit (3-tier Terminal Block)

| Item | Specification | | | | |
|---|--|--|--|--|--|
| Model | CRT1-OD16TA | CRT1-OD16TA-1 | CRT1-OD16TAH | CRT1-OD16TAH-1 | |
| I/O capacity | 16 outputs | | | | |
| Internal I/O common | NPN | PNP | NPN | PNP | |
| Rated output current | 0.5 A/output, 2 A/common | | | | |
| Residual voltage | 1.2 V max. (0.5 A DC, between each output terminal and the G terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the V terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the G terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the V terminal) | |
| Leakage current | 0.1 mA max. | | | | |
| ON delay | 0.5 ms max. | | | | |
| OFF delay | 1.5 ms max. | | | | |
| Number of circuits per common | 8 outputs/common | | | | |
| Load short-circuit detection | Supported. | | | | |
| Disconnection detection | | | Operates at 3 mA/point max. (Does not operate at over 3 mA.) | | |
| Isolation method | Photocoupler | | | | |
| Output indicators | LED (yellow) | | | | |
| Installation | DIN Track | | | | |
| Power supply type | Multi-power supply | | | | |
| Communications power supply current consumption | 45 mA max. for 24-VDC power supply voltage 65 mA max. for 14-VDC power supply voltage 70 mA max. for 14-VDC power supply voltage | | | | |
| I/O power supply current consumption | 15 mA max. for 24-VDC power supply voltage | | | 35 mA max. for 24-VDC power supply voltage | |
| Output handling for communications errors | Select either hold or clear from CX-Integrator. | | | | |
| Weight | 330 g max. | | | | |

Input and Output Section Specifications

● 8-point Input and 8-point Output Units (3-tier Terminal Block) Common Specifications

| Item | Specification | | | |
|---|--|---------------|---|----------------|
| Model | CRT1-MD16TA | CRT1-MD16TA-1 | CRT1-MD16TAH | CRT1-MD16TAH-1 |
| Installation | DIN Track | | | |
| Communications power supply current consumption | 40 mA max. for 24-VDC power supply voltage 60 mA max. for 14-VDC power supply voltage | | 40 mA max. for 24-VDC powers 70 mA max. for 14-VDC powers | |
| Weight | 330 g max. | | 340 g max. | |

Input Section Specifications

| Item | Specification | | | | |
|--------------------------------------|--|--|--|--|--|
| Model | CRT1-MD16TA | CRT1-MD16TA-1 | CRT1-MD16TAH | CRT1-MD16TAH-1 | |
| I/O capacity | 8 inputs | | | | |
| Internal I/O common | NPN | PNP | NPN | PNP | |
| ON voltage | 15 VDC min. (between each input terminal and the V terminal) | 15 VDC min. (between each input terminal and the G terminal) | 10.5 VDC min. (between each input terminal and the V terminal) | 10.5 VDC min. (between each input terminal and the G terminal) | |
| OFF voltage | 5 VDC max. (between each input terminal and the V terminal) | 5 VDC max. (between each input terminal and the G terminal) | | | |
| OFF current | 1.0 mA max. | 1.0 mA max. | | | |
| Input current | At 24 VDC: 6.0 mA max./input At 17 VDC: 3.0 mA min./input | | | | |
| ON delay | 1.5 ms max. | 1.5 ms max. | | | |
| OFF delay | 1.5 ms max. | | | | |
| Power supply short-circuit detection | | Operates at 50 mA/point min. | | | |
| Disconnection detection | | Operates at 0.3 mA/point max. | | | |
| Number of circuits per common | 8 inputs/common | 8 inputs/common | | | |
| Isolation method | Photocoupler | | | | |
| Input indicator | LED (yellow) | | | | |
| Power supply type | Multi-power supply | | | | |
| I/O power supply current consumption | 5 mA max. for 24-VDC power supply voltage 25 mA max. for 24-VDC power supply voltage | | | supply voltage | |

Output Section Specifications

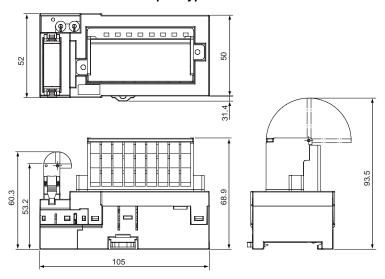
| Item | Specification | | | | |
|---|--|--|--|--|--|
| Model | CRT1-MD16TA | CRT1-MD16TA-1 | CRT1-MD16TAH | CRT1-MD16TAH-1 | |
| I/O capacity | 8 outputs | | | | |
| Internal I/O common | NPN | PNP | NPN | PNP | |
| Rated output current | 0.5 A/output, 2 A/common | | | | |
| Residual voltage | 1.2 V max. (0.5 A DC, between each output terminal and the G terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the V terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the G terminal) | 1.2 V max. (0.5 A DC, between each output terminal and the V terminal) | |
| Leakage current | 0.1 mA max. | | | | |
| ON delay | 0.5 ms max. | | | | |
| OFF delay | 1.5 ms max. | | | | |
| Load short-circuit detection | Supported. | | | | |
| Disconnection detection | | | Operates at 3 mA/point max. (Does not operate at over 3 mA.) | | |
| Number of circuits per common | 8 outputs/common | | | | |
| Isolation method | Photocoupler | Photocoupler | | | |
| Output indicators | LED (yellow) | | | | |
| I/O power supply current consumption | 15 mA max. for 24-VDC power supply voltage 35 mA max. for 24-VDC p supply voltage | | | 35 mA max. for 24-VDC power supply voltage | |
| Output handling for communications errors | Select either hold or clear from CX-Integrator. | | | | |



Dimensions (Unit: mm)

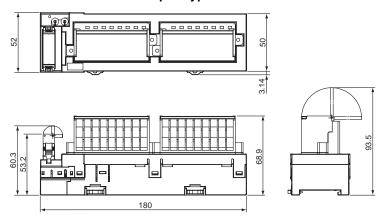
CRT1-ID08TA (-1) CRT1-OD08TA(-1)

When a DCN4-TB4 Open Type Connectors Is Mounted



CRT1-ID16TA(-1) CRT1-OD16TA(-1 CRT1-MD16TA(-1)

When a DCN4-TB4 Open Type Connectors Is Mounted



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